

REMARKS

Claims 1-10 and 12-14 are now pending in the application. By this paper, Claims 1, 2, and 12 have been amended and Claim 11 has been cancelled without prejudice or disclaimer of the subject matter contained therein. The basis for these amendments can be found throughout the specification, claims, and drawings originally filed. No new matter has been added. The preceding amendments and the following remarks are believed to be fully responsive to the outstanding Office Action and are believed to place the application in condition for allowance.

The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

SPECIFICATION

The Examiner objects to the Title of the application for failing to describe the invention to which the claims are directed. Applicant has replaced the Title per the Examiner's requirement. Reconsideration and withdrawal of this objection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 2 and 12-14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ra (U.S. Pat. No. 5,879,978).

This rejection is respectfully traversed.

Each of independent Claims 1, 2, and 12 call for a semiconductor device (100) including a gate electrode (40) having a major axis and a minor axis and a channel

region (16) having crests and troughs alternately spaced apart along the major axis of the gate electrode. See Specification at pg. 6, Paragraph [0030] and FIGS. 1 and 3.

Ra fails to teach a channel region having crests and troughs alternately spaced apart along a major axis of a gate electrode. Ra teaches a channel region disposed between a source region (29) and a drain region (29) in a semiconductor layer (21). See Ra at FIG. 3. The channel region includes a wave-like pattern having a series of peaks and valleys alternately spaced apart along a *minor* axis of a gate electrode (23). See Ra at FIG. 3. In this manner, the channel region of Ra includes a series of peaks and valleys that are positioned along an opposite axis of the gate electrode from the peaks and valleys of the present invention. Therefore, Applicant respectfully submits that Ra fails to teach each and every element of the claimed invention.

Because Ra fails to teach a channel region including a wave-like pattern having crests and troughs alternately spaced apart along a major axis of a gate electrode, Applicant respectfully submits that Ra fails to teach each and every element of the present invention. Accordingly, Applicant respectfully submits that independent Claims 1, 2, and 12, as well as Claims 13-14, respectively dependent therefrom, are in condition for allowance. Therefore, reconsideration and withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 3-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ra (U.S. Pat. No. 5,879,978).

Claims 1-10 and 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ker et al. (U.S. Pat. No. 6,750,515) in view of Ra (U.S. Pat No. 5,879,978).

These rejections are respectfully traversed.

Because Ra fails to disclose a channel region including a wave-like pattern having crests and troughs alternately spaced apart along a major axis of a gate electrode, and none of the cited references cures this deficiency on Ra, Applicant's invention is not taught or suggested by the prior art and reconsideration and withdrawal of the rejection is respectfully requested.

In this manner, it is believed that independent Claims 1, 2, and 12, as well as Claims 3-10 and 13-14, respectively dependent therefrom, are in a condition for allowance in light of the art of record. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Dated: May 20, 2005

By: _____

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